

PROJECT DESCRIPTION

GENERAL

THIS PART OF THE PROJECT INVOLVES RECONSTRUCTING PORTIONS OF THE EXISTING TRAFFIC SIGNAL STRUCTURE AT MD 27 AND WATERSVILLE ROAD IN CARROLL COUNTY. GEOMETRIC IMPROVEMENTS ARE PROPOSED THAT INCLUDE CONSTRUCTING SOUTHBOUND AND EASTBOUND RIGHT TURN LANES. THE EXISTING TWIN MAST ARM STRUCTURE AND CABINET IN THE NORTHEAST QUADRANT WILL REMAIN. THIS PLAN REFLECTS PROPOSED GEOMETRIC AND TRAFFIC SIGNAL MODIFICATIONS PLANNED ON THE EAST LEG OF THE INTERSECTION TO BE COMPLETED BY THE DEVELOPER OF THE VILLAGE OF NOTTINGHAM. IT IS ANTICIPATED THAT THESE IMPROVEMENTS WILL BE IN PLACE BY THE TIME CONSTRUCTION COMMENCES FOR THIS PROJECT. MD 27 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE. THE EXISTING SIGNAL PHASING WILL REMAIN.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER, LOOP DETECTOR AMPLIFIERS AND ASSOCIATED HARNESSES WILL REMAIN. MICROLOOP PROBES ARE PROPOSED FOR SETBACK DETECTION ALONG SOUTHBOUND MD 27 AND EASTBOUND WATERSVILLE ROAD. THE SHA SIGNAL SHOP WILL INSTALL THE PROPOSED FOUR CHANNEL LOOP DETECTOR AMPLIFIER.

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: 301-624-8140

Ms. Andrea Abend
Assistant District Engineer - Utility
Phone: 301-624-8115

Mr. Dave Coyne
Assistant District Engineer - Maintenance
Phone: 301-624-8105

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

The Power Company Representative is:
Baltimore Gas & Electric Company
7317 Parkway Drive South
Hanover, MD 21076
410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

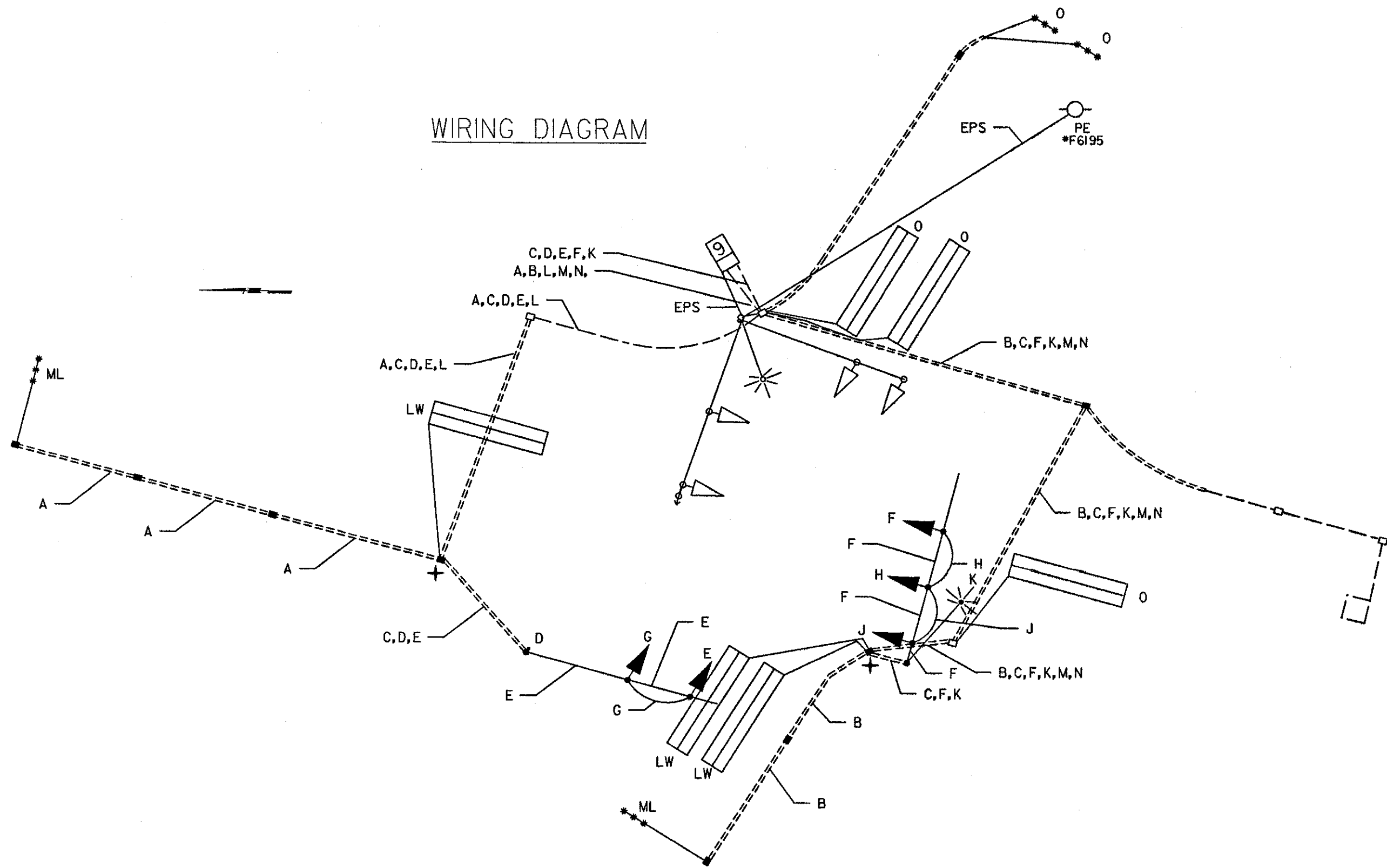
CAT CODE	QUANTITY	DESCRIPTION
963010	1 EA	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT
973023	73 SF	SHEET ALUMINUM SIGNS: 1 EACH - R3-5L (30 IN. X 36 IN.) 1 EACH - R3-5R (30 IN. X 36 IN.) 1 EACH - D-3(2) (84 IN. X 16 IN.) DUAL-FACED 'WATERSVILLE RD' 1 EACH - D-3(2) (48 IN. X 16 IN.) DUAL-FACED 'RIDGE RD' 1 EACH - SHIELD ASSEMBLY (36 IN. X 75 IN.) 1 EACH - SHIELD ASSEMBLY (24 IN. X 51 IN.) 1 EACH - R10-4(2) (9 IN. X 12 IN.)

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CAT CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	1 CY	TEST PIT EXCAVATION
585624	80 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
800000	1 LS	REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
801004	10 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	500 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805118	70 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805135	625 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805160	40 LF	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
810550	1 EA	MICROLOOP PROBE, 500 FOOT LEAD-IN CABLE
810555	1 EA	MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE
811001	6 EA	ELECTRICAL HANDHOLE
813015	73 SF	INSTALL OVERHEAD SIGN
818036	2 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
831010	1 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	2 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860272	15 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861104	600 LF	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861105	200 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
861107	60 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
861108	600 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
861116	300 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG), TC
862101	700 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO.14 AWG)
862102	400 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
865001	1 EA	PUSH BUTTON AND SIGN
866104	1 EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE

WIRING DIAGRAM



- A - MICROLOOP PROBE LEAD-IN
- B - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- C - 2-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
- D - 7-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
- E - 5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
- F - 2-CONDUCTOR ELECTRICAL CABLE (NO.12 AWG), TC
- G - 2-CONDUCTOR ALUMINUM SHIELDED ELECTRICAL CABLE (NO.14 AWG)
- H - PROPOSED WIRING TO BE INSTALLED BY OTHERS
- I - MICROLOOP PROBE SET
- J - 3/4 IN. x 10 FT. GROUND ROD
- K - EXISTING POWER SERVICE
- L - LOOP WIRE

PHASE CHART

	1	2	3	4	5	6	7	8	9
PHASE 2 + 6	G	G	G	G	G	R	R	R	R
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4 + 8	R	R	R	R	R	G	G	G	G
PHASE 4 + 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y
PHASE 4 + 8 ALT	R	R	R	R	R	G	G	G	G
PED CLEARANCE	R	R	R	R	R	G	G	G	G
PHASE 4 + 8 ALT CHANGE	R	R	R	R	R	Y	Y	Y	Y
PRE-EMPT OLA PHASE 3 + 8	R	R	R	R	R	G	R	R	R
PRE-EMPT OLA PHASE 3 + 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

STV Incorporated

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SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 27 (RIDGE ROAD) AND WATERSVILLE ROAD

GENERAL INFORMATION

SCALE NONE DATE 1/2005 CONTRACT NO. 05-R-5

DESIGNED BY MRK COUNTY CARROLL
DRAWN BY MRK LOGMILE 06002702.32
CHECKED BY BAB T.I.M.S. NO. G317
F.A.P. NO. TOD NO. 12

DRAWING NO. TS-2466-D

SHEET NO. 9 OF 17